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By-Martin, Warren Bryan

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In the traditional US higher education system, there is need for intensive study of hierarchical administrative organization, course content, and updating of conservative faculty attitudes. If the university is to survive this era of rapid social change, new educational alternatives must be considered. At some institutions educational philosophy has shifted toward affective education, an approach that encourages informal faculty-student relationships and in which the accumulation of knowledge is combined with the use of knowledge as a means to personal fulfillment. More of these programs need to be established. Much faculty resistance to change stems from a lack of data on innovative developments. Their workload could be reduced and time spent in creative activities if students were taught by the tutorial method and allowed to study independently. Workshops on educational change would provide opportunities for specialists to utilize research data for improving the local university situation, and research and development centers could test concepts of significance to a particular institution. College administration should adopt industry's systems approach, in which decentralized leadership is emphasized and status is determined more by achievement than by position. Federal research and development centers are conducting research on educational innovations and, if the federal government supports change, changes will eventually occur. Colleges and universities should be prepared for this challenge. (WM)

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THE DEVELOPMENT OF INNOVATION:

MAKING REALITY CHANGE

WARREN BRYAN MARTIN

Center for Research and Development
in Higher Education

University of California
Berkeley, California

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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University of California
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THE DEVELOPMENT OF INNOVATION:

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Warren Bryan Martin

It was Thomas Mann who said, "Do not just invent something, make something out of reality." That statement would be a good motto for starry-eyed brides who tend to "invent" their mates rather than to make something out of reality. Mann's admonition is certainly consistent with the credo of that way of thinking called the "systems approach." As John Pfeiffer has written in his valuable little book, A New Look at Education: Systems Analysis in our Schools and Colleges:

> The systems approach can be regarded as a disciplined way of using specialists in a variety of fields to analyze as precisely as possible sets of activities whose interrelationships are very complicated, and of formulating comprehensive and flexible plans on the basis of the analysis. The frame of reference is unequivocally the real world. 1/

But it is for education, and especially with those of us concerned for innovation and experimentation in higher education, that Mann's words have a special relevance. We are reminded by them that abstractions about educational change are not enough (although we must have dreams and visions). We will not succeed, however, unless we give attention to developing innovations for existing situations, using available resources to achieve viable improvements. The task is to make something out of reality that will make reality change.

1/ John Pfeiffer, New Look at Education: Systems Analysis in our Schools and Colleges. NY: Odyssey Press, 1968, p. 2.

To get on with this job requires, first, an understanding of the nature of reality. And therein lies a problem. What from my perspective may look like a horse and, from yours, a man, especially if we are conventional thinkers, will look to an innovator like a centaur. Since our concern is for making reality change, we will concentrate on the innovator's view of reality--not regarding that race fabled to be half man and half horse who lived in Thessaly--but the realities of the contemporary educational scene.

The innovator's understanding of present conditions can be stated in a series of propositions as follows:

(1) There is need now for radical and continuing change in higher education. This is so because of present inadequacies in the system, most of which have been well aired and amply documented. We have all heard these and other criticisms:

- Students have not participated actively in their educational experiences; they have been passive rather than active learners.
- Subject matter in the curriculum, and the way it is taught, has been inert, not vital, static not active, at best formal, at worst irrelevant.
- The emphasis on cognitive rationality has made it difficult for students to relate to noncognitive dimensions of life, despite the claim that education in this country is concerned for the "whole person."
- Education is professionally functional but socially dysfunctional. Its technocratic orientation belies its claim to diversity, and the emphasis on quantitative criteria--with pressures for grades, credits, awards--has negative qualitative consequences. This emphasis squeezes the spiritual juices out of individuals.

These, then, are some of the inadequacies of the system that necessitate radical and continuing change.

But change is needed for another reason. Conditions in the time of advanced technology, the age into which we are moving, will be so different from those in the past, it is likely that what we are doing now in education will be regarded as negative precedents--examples of what not to do. Future prospects, then, as well as present problems, dictate change. And this leads us into the second proposition by which the innovator's understanding of reality is made known.

(2) The need for change is coupled with an assurance that changes are coming. The innovator has a sort of Marxian confidence that the future is on his side. Present, rapid transformations in post-industrial technology and the growing impact of new media are harbingers of the extent of change that may be expected in the forms of education, while the emerging challenge of the young to prevailing societal values--to war as an instrument of national policy, to the social and ethical hypocrisies of our culture, to power, fame, and wealth as life goals--are evidence that traditional values are no longer assumed to be good and, increasingly, are seen as deficient. The forms and substance of this nation's life are beginning to change in ways so profound that, innovators believe, higher education in the future is going to be different, not in degree, but in kind.

Paul Lazarsfeld has said that, viewed historically, innovations are introduced into the system of higher education in one of three ways: (1) through establishment of new universities as a setting for new forms of teaching or organization or for teaching new subject matters; (2) through

establishment of nonuniversity bodies for carrying out programs that later become part of the university functions; and (3) through establishment of new units in the university itself. 2/

No doubt changes have come about in these ways. But there is a prior consideration, and it is seen in the question of the initiatives for the establishment of new universities, or nonuniversity centers and institutes, or federated colleges and other subunits within the university. From whence do they come? Whatever the answer historically, the answer today is that the initiatives for innovation in education are almost all from sources external to the institution.

We have mentioned that the technological-electronic revolution may be expected to effect change on the campus. Advanced technology requires an expertise which, under existing educational provisions, only the university can provide. The major corporations depend on the universities, and this fact should make faculties more self-confident and assertive because, as John Kenneth Galbraith has said, they are the new darlings of the "technostructure"--they train the youth in the expertise required for the nation-state. There is, however, another side to this relationship. If institutions of higher education do not do the job that is needed, if they are unresponsive or too independent, if they change too slowly, the corporations will move into education and the information transferral business and take over the training of the personnel they want. IBM and General Electric are already showing the way. Now, the innovator's position is that universities do not want to lose their virtual monopoly on the training of the expert society and, therefore, they will change to satisfy the expectations of the new technetronic age.

2/ Paul Lazersfeld, "Innovation in Higher Education," Expanding Horizons of Knowledge About Man: A Symposium, NY: Yeshiva University, 1966, p. 13.

Another external influence for change in colleges and universities is the federal government. During the past decade, federal agencies have not only greatly increased their funding of projects at educational institutions, they have also become quite active in shaping educational values, in bringing the social institutions of the nation, including educational institutions, into line with current thinking. At a time when the costs of education are escalating beyond the ability of local or regional bodies to fund, it is unlikely that the increasing federal leadership regarding institutional policies will be blocked on campus. Programs may be designed within institutions, but policies will be increasingly influenced from outside. If the federal government favors change, then changes will occur. And the government does favor it. One indication is the establishment of nine research and development centers funded by the U. S. Office of Education; all of them related to universities and encouraged by Washington to do research on educational innovations as well as to promote the dissemination and institutional development of their findings. They are, not centaur, but Trojan horse.

Other dimensions to the innovator's understanding of reality, in addition to his ideas about the need for change and the likelihood of it, can be stated in briefer propositions.

(3) Faculty conservatism, to take up the list, is everywhere in higher education an inhibitor of innovation. Not because faculty are congenitally incapable of change, but because they have led circumscribed lives--have you ever thought of the university as an intellectual monastery?--and, therefore, the faculty that government and industry have not yet exposed to the world of advanced technology and those sheltered from the nation's social malaise are likely to be insensitive to the need for change. They still side with the old English who loved to say over their sherry, "When it is not

necessary to change, it is necessary not to change." Well, it is necessary now to change, but too many faculty have yet to get the message.

Another problem for faculty, a more serious one, is that the majority of faculty have no sense of the possible, no substantive acquaintance with what is already going on in regard to innovation and experimentation. Therefore, they stand condemned for the very thing academics charge the uneducated masses with doing: they suspicion that about which they know a little but not enough, and that about which they know nothing they denounce outright. When faculty do this it is not done out of perversity, but ignorance. Unaware of what can be done, they cling to the familiar and to that which is available. Yet, old ways are no longer the best ways, not because the past was bad but because the future will be different--that is the innovator's understanding of things. So, when speaking of making realities change, as will be done later on in this paper, it will be necessary to take up again the matter of faculty ignorance of viable options. For now it is enough to say that one of the best ways to test the extent to which a proposal for change is radical is to determine the extent of faculty opposition to it.

Here is another proposition:

(4) Students can scuttle innovation even faster than faculty. College and university administrators still have in most cases a good measure of influence with faculties (although it is stylish now for administrators to engage in self-depreciation), but educational institutions are finally dependent on the cooperation and support of students. Students, therefore, could transform their schools. However, despite a radical minority--which is itself a force for change--the majority of students are docile and acquiescent. The conditioning influences in the homes and communities from which they come, hence, their values, their aspirations, incline them to conventionality. Therefore, in those colleges and universities where students might do most to effect changes, because these institutions are vulnerable to their pressure, students do least. The question with most students is not whether they will go too far, but whether they will

go far enough.

(5) The innovator's view of administrators is that they can be expected to show an interest in innovation and experimentation but they are likely to be the first to get uneasy when programs committed to change turn out to be truly different--in values, priorities and costs. It must be acknowledged that prototypes cost more money, that innovations are an implicit criticism of the status quo, that those who intend to lead must be willing to go it alone. Most administrators, conditioned to the "administrative function," by which attention is focused on continuity more than change, or harmony more than dissonance, become opportunists interested in diversity of means but not diversity of ends.

One way to test the extent of an administrator's commitment to change, then, is to determine the extent to which he is willing to innovate in the area of his own administrative arrangements and procedures. Most often, like everybody else, administrators are happy to have innovations tried out on others. Upon encountering the innovator's tracks in the groves of academe, the administrator will resort to that ancient ploy, "You see where he's going, I'll see where he's been."

These are dimensions of reality, on campus and off, as seen by the innovative mind. But our subject is "making reality change." It is not enough to bewail the paucity of change or to point out the hazards and barriers confronting innovation. The cure of a malady begins, but does not end, with diagnosis. What could be done positively, and within the institutions, to make reality change? Here are a few ideas that seem viable.

It was implied earlier that college and university administrators are conditioned by their organizational arrangements and professional duties to favor conservation more than innovation. They are boxed in by structural arrangements unchanged since the beginning of this century. Their paradigms are still drawn from old industrial models. So, administrators talk about the knowledge industry; educational facilities are plants, students products. Emphasis in the curriculum is on grade stratification, units of credit, and other norms of quantification, while the emphasis in organization is hierarchical. Meantime the organizational model for industry is changing to feature decentralized leadership that is situational and adaptable, with status determined less by position and more by specific achievements. The same is true on the intellectual frontiers now. The action is on the borders between the disciplines. Some of the most exciting developments are in the new hybrids--astrophysics, mathematical economics. And the leaders there are men who combine technical expertise with integrative and synoptic ability, regardless of their ages.

But what have these developments to say to us, particularly at the point of making administrative realities, perhaps it should read, administrative rigidities, change? To me they offer this idea:

> In a day when the old static intellectual structure in the university, with its compartmentalization of knowledge and specializations; is giving way, and the challenge [in industry as well as education] is to live with probability, contingency, and flexible configurations, a kindred development in administration. . .would be the establishment of job circuits that would break the inertia and defensiveness that tend to exist where fixed responsibilities and long-term, isolated assignments predominate. Now that computers and office technicians are available to handle routine work and assure procedural continuity, rotating administrative personnel around a circuit of offices would improve prospects for fresh ideas and the continuing analysis of established arrangements. 3/

3/ For more on this subject, see Warren B. Martin, Alternative to Irrelevance: A Strategy for Reform in Higher Education, Nashville: Abingdon Press, 1968, pp. 126-127.

Another idea that could have relevance for college and university administrators encourages changes in point of view rather than job positions. I refer to the way systems analysis contributes to a solid foundation for administrative decision making. The systems approach does not in itself promote innovation; indeed it may be used to justify established arrangements. However, this way of thinking, developed by the military and industry, identified with Robert McNamara's stint at the Pentagon, is now being applied to higher education at the University of Toronto, Berkeley, and a few other places, and is effective as "a pruning and clearing and lopping-off operation, an intense effort to eliminate trivia and secondary issues, and to concentrate on basic relationships." 4/

Systems analysis includes several phases: defining the system's objectives (our research indicates that far too little attention is being given by all elements of the academic community to assumptions, goals, and integrative values), obtaining measures of effectiveness (Kafka's cloun went around the town square measuring things with a yardstick and then measuring his standard with another unlike itself), identifying constraints and uncontrollable variables (But be careful! Sometimes the "uncontrollable variable" can be influenced; remember President Johnson before New Hampshire--and after), identifying controllable variables (those which can be changed).

Then, once the nature and limits of a problem are understood, the systems approach turns to planning possible courses of action. Crucial to success here is the specification of subfunctions and alternatives and the building of them into total systems which can be evaluated and compared in terms of core objectives. Quoting Pfeiffer again:

> ". . . once objectives and criteria have been determined, the next step calls for identifying and spelling out different methods of meeting each objective. This is an active, not a passive step. There

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4/ Pfeiffer, op. cit., p. 22.

> must be an organized effort to search out alternatives, perhaps the most important and creative phase of systems analysis. It demands open-mindedness and readiness to discard preconceived notions. Furthermore, the alternatives may be combined in different ways and each combination represents a possible plan, a set of activities which may bring about a desired set of changes. 5/

Systems analysis is no panacea. Indeed, it can be a threat to change because it can lead to centralization and uniformity in the name of efficiency. But the innovator, in this connection and all others, follows the advice of John Cole: "Look for the opportunity in every difficulty instead of being paralyzed at the thought of difficulty in the problem situation." So, in the concern of the systems approach for a serious exploration of alternatives, the innovator sees an opportunity; an opportunity to employ a construct--called systems analysis--that may open the way to change.

Earlier I mentioned that data show that one of the reasons for faculty resistance to change is ignorance of change options. We return to that problem now, but in search of answers for it.

A questionnaire distributed to faculty samples at 16 institutions of higher education included the following item:

> In your opinion, at what colleges and universities are the most promising innovations in undergraduate education taking place? (List not more than five schools, and try to list them in the order of your estimate of the importance of the innovation). 6/

Faculty were not given multiple choice response options in this questionnaire, but, rather, were presented two columns, one for the listing of institutions and the other for innovations.

Twenty-seven percent of 577 respondents did not reply to this question, by far the highest no-response rate for any item. Of the 73 percent who did answer, 17 percent said straightforwardly that they didn't know enough about innovative institutions to answer, 5 percent named a school but no innovation,

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5/ Pfeiffer, op. cit., p. 5.
6/ Martin and Short, Institutional Character Research Project, Center for Research and Development in Higher Education, Berkeley. (Unpublished manuscript.)

and another 10 percent gave variant replies of one sort or another. Forty-one percent met the specifications of the question and listed one or more college and one or more innovation. But even this group often gave vague and uncertain responses. After all due allowances are made--confusion and irritation with the form of the item or with the questionnaire, time pressures, indigestion and other disabling conditions--the conclusion must be drawn that faculty left to their own devices to list innovative places and programs deserve low marks. Indeed, they flunk.

Assuming that this item accurately represents reality, how do we change reality? Later on I will mention some specific ways to replace faculty ignorance with knowledge of change options, but now we are concerned for ideas, for what faculty should know. One idea with full potential for innovation is what may be called unstructured education or multidimensional learning. We are increasingly aware these days that higher education is experiencing one of those recurring shifts in educational philosophy, this one away from the view that the function of a university is the accumulation and dissemination of knowledge toward the view that the purpose of the university is to encourage individual growth. Likewise, the move is away from a conception of the faculty as a medieval clergy, armed with ex cathedra authority and arrogating to themselves power over life and death for the trembling faithful, toward the notion that the student is a young adult who must assume responsibility for his own education, making full use of all the resources, including faculty, that are available to him.

This shift of emphasis not only makes possible new approaches to learning, once the lock-step, one-model approach gives way, but it opens up windows to fresh air that changes the very atmosphere of learning. When the house of intellect is a closed chapel, with the faculty like priests

set apart from the people, the result is the melancholy condition William Arrowsmith alluded to when he said, "It is possible for a student to go from kindergarten to graduate school without ever encountering a man." 7/ Students and faculty under such conditions make contact on the intellectual level only and the faculty-student relationship is tutelary. (If professors profess, and teachers teach, what do tutors do?) Furthermore, the relationship often becomes formal, remote, and sullen to the point that authoritarianism must be substituted for authority.

Authority represents, as Martin Duberman has pointed out, accumulated experience, technical skill, and spiritual insight. Authoritarianism represents their counterfeits:

> Age masquerading as maturity, information as understanding, technique as originality. Authoritarianism is forced to demand the respect that authority draws naturally to itself. The former, like all demands, is likely to meet with hostility; the latter, like all authenticity, with emulation. Our universities--our schools at every level--are rife with authoritarianism, all but devoid of authority. 8/

This, by the way, is the answer for those who say that the consequence of unstructured, informal education is a lack of standards and permissiveness leading to anarchy. On the contrary, what it does, since the appeal is to the whole person, to the emotional side as well as the rational, the non-cognitive and the cognitive, is to show how many levels of the person can be "educated" simultaneously, how the other side of freedom is responsibility, how persuasion works better than authoritarianism, how authority is not permissiveness.

Youth today are increasingly interested in and influenced by that approach to learning and total experience which has come to be associated with the Esalon Institute. Over 200 students at Stanford are paying $7.50 per

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7/ William Arrowsmith, "The Heart of Education: Turbulent Teachers" Matrix, 1967, p. 27.
8/ Martin Duberman, "An Experiment in Education" Daedalus, Winter, 1968, pp. 321-322.

person for "Esalon at Stanford" sessions. They are responsive to the affective approach to education. Does this mean that education is being taken over by psychoanalysis? No, but it means a growing awareness that all learning to be personally meaningful will be in some measure psychotherapeutic.

Would it not be possible then, as is now in fact proposed for one of our major university campuses, to establish programs in affective education through the counselling centers of our colleges and universities? A model or prototype for later development in the regular curriculum might be started this way. Or, as another alternative, a program could be established independent of the university, but utilizing the resources of the faculty and student body. It could be in an affiliate relationship to the university, and there is precedent for this in both English and American institutions. Even in the University of California, where the regents have taken the position that programs are in or out of the university--"either we control them or we don't"--there are at Livermore and Los Alamos, programs formally affiliated with the university yet controlled by the Atomic Energy Commission. We have talked about the diversity of higher education but we have shown a preference for conformity to certain values. Here is an opportunity to put our actions where our words were.

Another emphasis of the new educational philosophy is that intellectual development never takes place in vacuo, despite the attempts of educators to remove the institution of learning from its social and political context and to act as though statements of fact could be clearly separated from value judgments. We know now that such is not possible; we know it from our own experience, not because the Hegelian and Marxist traditions said so.

College and university educators not only have assumptions and values by which they are influenced, but, alas, in my opinion, their ideals and attitudinal styles have been drawn from an outdated hierarchical church and an ingrown

social aristocracy. Discrimination, therefore, despite claims to objectivity, is rampant in colleges and universities. Not only racial discrimination, though there is that; not only economic discrimination, though there is that; but especially discrimination based on class or caste, on style and attitude. But whereas the church is putting off its traditional pomp and splendor, becoming active in social reforms, and humanizing religious orders, the institution of higher education remains tense and defensive about its traditions and ceremonials, with the educator still inclined to be like Thomas Jefferson, "a democrat at a distance."

It is disquieting to realize that in that place which, of all the institutions of society, emphasizes the supremacy of intellectual analysis and impartial objectivity---standards to which students are held accountable--- faculty often judge students on the basis of social characteristics. What Edgar Friedenberg said about youth in elementary and secondary schools is also true for college-age youth, that is, that their success in school will depend on their desire to succeed in society and their success in society will depend on how well they do in school. In the institution in which critical thinking supposedly receives highest priority, people succeed as much by personality and social compatibility as by ideas.

If the student conforms to the faculty way of doing things; if he is deferential to authority, courteous, witty, intellectually oriented within a disciplinary specialization, if he acts and looks as faculty do, he greatly enhances his prospects for success in college. If, on the other hand, he is irreverent, brash, impatient and characterized by individualistic and variant attitudes and actions, he jeopardizes himself no matter how good his ideas. Where diversity is praised, those who are like-minded prevail.

We educators have said that the institution of higher education is supposed to educate the whole person. But our rewards and sanctions have

emphasized intellectual analysis or cognitive rationality with the consequence that the intuitive, noncognitive, spiritual side of the whole person has been allowed to atrophy--or to be developed elsewhere.

We have maintained that college is the place where the student's beliefs are challenged and his values altered. But research data show that the impact of the institution on student characteristics is less than what it ought to be. One reason, surely, is that beliefs are not determined by reason alone and they cannot be successfully challenged by intellectualized, dispassionate logic alone. While students need to be changed, it takes a more inclusive effort than faculty have heretofore tried to really achieve such change.

We have said that the university is a place for self-discovery when actually it has emphasized the accumulation and dissemination of knowledge. The student's energies are directed to taking on a body of knowledge rather than to embodying it as a means to personal fulfillment. How often the school is more concerned for what is taught than what is learned. We forget that, if the school is a center of learning, what is heard by the student is every bit as important as what is said by the teacher.

It is the adverse affect of all of this on the youth that makes the alternative approach attractive, even mandatory. Told to exercise independence, the student has learned to conform or be called subversive. The student told to pursue self-discovery has found himself engaged in tasks set by others, and to fulfill not himself but them. To live for the approval of others means:

> ". . . the acceptance of disguise as a necessity of life; the unconscious determination to manipulate others in the way one has been manipulated; the conviction that productivity is more important than character and success" superior to satisfaction; the loss of curiosity, of a willingness to ask questions, of the capacity to take risks. 9/

9/ Duberman, Ibid., p. 320.

Because the reality of our educational situation is that we have under the old system, where the administrative organization was hierarchical and faculty attitudes aristocratic, produced too many parrots and pedants or dropouts and ciphers, the possibilities of involvement for students in unstructured educational experiences seem likely to encourage an openness to innovation. Whereas the traditionalists are always worrying about throwing the baby out with the bath, the new participants may be more disposed to ask the prior question, "Is the baby alive?"

One corollary of the philosophy of education we have been considering would be student participation in academic policy formulation. Faculty are now, by and large, opposed to it. In the Institutional Character Study, 62 percent of faculty respondents declared that students should not be involved more in academic policy matters than they were at the time of the study--and, in the institutions of this study, students had advisory roles in a few cases but no role in academic governance at most places. Yet, 34 percent of the faculty participating favored change, and that fact is the innovator's hope.

If students are to become active participants in the formulation of policy for educational institutions, even as factory workers have gained participation in the affairs of industry, then an idea that shows promise for making realities change is the notion of creating all-college seminars involving students and faculty, with students earning credit, on such subjects as "A philosophy of mass public education," "The university as agent of socialization and agent of social change," and "The university as community--myth or necessity?" Historical, sociological, and psychological factors would have to be taken into account in such seminars, likewise organizational theory, leadership variables, and a score of other important considerations that could contribute to the preparation of students for participation in

institutional governance as well as for citizenship and personal fulfillment. And given what we know about the paucity of attention to these subjects by most faculty and administrators, they too would benefit.

We have considered the innovator's perspectives on the realities of the present situation, particularly conditions for administrators, faculty, and students that affect the likelihood of change and we examined certain ideas which appear to have relevance for institutional realities--job circuits and the systems approach for administrators. We have also noted a shift in emphasis toward an educational philosophy that might involve faculty and students in unstructured, informal, more dynamic relationships and, in support of that development, I have suggested that new programs in affective education be introduced in or around our existing institutional structures, and that there be all-college seminars on substantive issues, as a way of preparing students for their responsibilities in academic governance as well as for probing alternative institutional models. Now we turn to the remaining segment of our topic, to the development of innovative ideas. Our concern here is for strategies and tactics, for specific ways of changing negative attitudes and establishing a positive climate. Here are a few suggestions:

A new magazine, called Change, will begin publication this winter. Its main task will be to make available to a diversified audience information on innovation and experimentation in higher education. If successful, the journal will launch an information exchange process that should relieve the ignorance or limited knowledge that now characterize the educator's situation, as well as stimulate criticism of existing efforts and generate creativity and energy for new ones. This publication should hit every campus and be utilized there.

Another way to develop innovations in specific colleges and univer-

sities is to set up workshops on educational change. With all segments of the academic community present, specialists on change options can be invited in and encouraged to work with participants in applying research data, and experiences elsewhere, to the local situation. Such a working arrangement should be longitudinal because in these matters, as in so much of life, to persist is to prevail.

A variation on this idea would be to arrange for a few key faculty to take sabbatical or leave time at a center for research and development in higher education--here, at UCLA, Oregon, or the Center for the Study of Higher Education at Michigan. Let these faculty relate their research interests to accessible data at these centers and then link both to the realities of the institutional situation out of which they come.

Thirdly, it is possible to establish a connection with R & D centers, as it is with the individual researcher, whereby theoretical conceptualizations thought to have particular significance for a college or university are actually tested in the field situation. This, in the purest sense, would be the development of innovation.

In any and all of these variations on the developmental theme, it is best to begin to alter realities by seizing the accessible beachheads for change. If you know, for example, as our data indicate, that entering freshmen are especially interested in discussion classes rather than lectures, exploit that advantage by suggesting that freshman sections of classes in the history of Western civilization or English be taught by the tutorial method, a model of which was worked out at Berkeley by Paul Piehler. If faculty are known to be seeking a reduction in workload, and it takes no research to document that desire, then promote true independent study--where the student takes the initiative, works mostly on his own, and turns to faculty

only as resource persons. A surprising number of students would accept such a challenge and succeed at it.

Related to this point is another finding from the Institutional Character Study. We found that among undergraduate faculties, as with students, are large numbers who are interested in innovation. Some 66 percent of our faculty respondents said that opportunities for innovation were "very important" to them, 28 percent called innovations "somewhat important," and only 4 percent regarded such opportunities as "not important." We do not find reason from these and other data to conclude that there are no resources within academe with which to effect change. The human resources are there; interested faculty and students are at least a large minority. They await leadership that will show them viable alternatives to conventional arrangements. And this is where this audience comes in.

What we have on many campuses these days is a stand-off between traditionalists and innovators, with the former group dominant but the latter group growing in numbers if not in knowledge and wisdom. What is needed to move the institution forward is a third force. Student personnel people, it seems to me, could be that force. They could provide knowledge of change possibilities, they could show leadership by being creative in their own programs.

Innovation, remember, is really not optional if we are to avoid in our colleges and universities a radical disjuncture between what has been and what will be. It is determined that institutions of higher education are going to change; in that sense we must all be determinists. But the forms, substance, and consequences of change still seem negotiable. To this extent we claim free will. Innovation or experimentation are the means whereby we can test out new structures and functions within which, hopefully,

we can give human contours to inevitable changes.

You could be the difference in the development of innovation on your campus. You could help to make realities change. Yes? Yes.